

REVIEW ARTICLE ON *ALARK VISHA* AND ITS MANAGEMENT BY *AGADA YOGA*Vd. Vishal R. Wagh<sup>1\*</sup>, Vd. Sachin Patil<sup>2</sup>, Vd. Sagar Narode<sup>3</sup>, Vd. Amrapali Nikam<sup>4</sup>, Vd. Rachna Patil<sup>5</sup>,  
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## ABSTRACT

In Ayurveda, *Alarka Visha* affects the *Sangyavha Strotas*. This condition is linked to Rabies in modern science. Rabies, a highly fatal viral disease of the nervous system caused by Lyssavirus type-1, sees around 10 million reported cases yearly worldwide, resulting in approximately 55,000 human deaths annually. India records the highest cases globally. Sushruta associates aggravated *Vata* in animals like dogs, foxes, and others with this disease, leading to sensory loss and specific behavioural changes like dropped tail, excessive saliva, and biting tendencies. Rabies primarily spreads through bites or scratches from infected animals like bats, coyotes, and stray dogs. Saliva contact with mucous membranes also transmits the virus. Its symptoms include fever, headache, excessive salivation, muscle spasms, paralysis, and confusion. Ayurvedic management methods for *Alarka Visha* involve treatments like applying hot ghee on the bite, purgation with old ghee, specific herbal formulations, cleansing therapies, and various medicinal combinations like *Dhatu-Sharpunkha Yoga*, *Piplyadi Yoga*, *Jatamanshi Yoga*, and others derived from *Tagar*, *Kapith*, *Khadiradi*.

**KEYWORDS:** Ayurveda, *Aalarka Visha*, *Jalsantrasa*, Dog Bite, Rabies, Hydrophobia.

## INTRODUCTION

*Agad-tantra*, a branch of Ashtanga Ayurveda, focuses on understanding poisons, their effects, identification, and treatments. Specifically, it delves into natural, animal, and artificial poisons, categorizing them as *Sthavara* (immobile) and *Jangam* (mobile). In Ayurveda, a dog bite, known as *Alarka Visha*, is often caused by animals like dogs, foxes, jackals, and others. Delayed wound care and improper hygiene contribute to the development of *Alarka Visha*. Animals like dogs, jackals, bears, tigers, and horses are considered vectors for Rabies (*Alarka Visha*) in ancient Ayurvedic texts.<sup>[1-2]</sup>

When a dog bite occurs, it affects the *Sangyavah Strotas* (Central Nervous System) due to *Dosha* imbalance, primarily *Vata*.<sup>[3]</sup> Rabies, a highly fatal viral disease caused by Lyssavirus type 1, is associated with *Alarka Visha* transmitted through bites from rabid animals, especially dogs with infective saliva. The virus travels from the injury site to the brain, leading to inflammation

and sensory loss in the bitten animal. Common signs include excessive salivation, altered behavior, and biting tendencies. Rabies showcases symptoms like encephalitis, muscle spasms, paralysis, and hydrophobia, particularly escalating during the rainy season.<sup>[4]</sup> This infectious disease, prevalent in both developed and developing countries, including India, holds a significant global impact, especially in Africa and Asia. Rabies ranks seventh among infectious diseases in terms of years of human life lost worldwide.<sup>[5]</sup>

## Rabies is two types

**1. Furious rabies:** painful spasms of the pharynx and larynx during which the patient chocks, gapes, and may show characteristic fear of water. Episodes are precipitated by sight and around water. There may be nervousness and aggressive behavior.

**2. Paralytic rabies-** Occurs after vampire bite with paralysis of involved limbs, ascending palsy to involve muscles of respiration and deglutition.<sup>[6]</sup>

The current WHO exposure categories (Categories I, II, and III) need revision, with a special Category IV for severe exposures. To aid clinicians, we suggest modification of the basic WHO recommendations, as shown in Table

#### Revised WHO rabies exposure categories

**Category I:** Touching or feeding animals, animal licks on intact skin (no exposure)

**Category II:** Nibbling of uncovered skin, minor scratches or abrasions without bleeding (exposure)

**Category III:** Single or multiple transdermal bites or scratches, contamination of mucous membrane or broken skin with saliva from animal licks, exposures due to direct contact with bats (severe exposure)

**Category IV:** Special consideration of severe bites to the face, head, and/or neck, or any additional considerations deemed by the clinician as extremely worrisome for RABV transmission (extremely severe exposure)

#### Pathogenesis (*Samprapti*)

According to *Sushruta*, poisonous substances from rabid animals disturb the *Vata* and *Kapha* in the *Sangyavaha Strotas*,<sup>[7]</sup> leading to the loss of sensation. Charak highlights that a dog bite affects all body constituents (*Tridosha*) and the essence (*Rasadi Dhatu*), while other carnivorous animals primarily impact the vitiated *Vata-Kapha*. *Vagbhata* emphasizes that a dog bite disturbs *Kapha*, entering and affecting the channels responsible for sensation in the nervous system, resulting in the loss of sensation.<sup>[8-9]</sup> In modern medicine, the initial phase of rabies involves the virus entering the body through the skin, often through a bite that introduces virus-infected saliva. The virus begins replicating in muscle cells at the bite site.

#### The incubation

Incubation period for rabies in humans varies, ranging from a minimum of 9 days to several months, typically falling between 4 to 8 weeks. Severe bites, especially those around the head or neck, tend to have shorter incubation periods.<sup>[10]</sup>

#### Rabies specific sign & Symptom

Rabies exhibits specific signs and symptoms across different phases. The initial prodromal period, lasting 1 to 4 days, includes fever, headache, fatigue, loss of appetite, nausea, vomiting, sore throat, and a non-productive cough. As the disease progresses into the acute neurologic or encephalitic phase, lasting from 1-2 days up to less than a week, it presents with heightened motor activity, excitement, confusion, hallucinations, unusual thoughts, muscle spasms, meningitis-like symptoms, seizures, partial paralysis, extreme sensitivity to light and sound, dilated and irregular pupils, increased tear production, excessive salivation and perspiration, along with weakness, heightened reflexes, and certain types of paralysis. The subsequent phase may lead to a coma and death, usually within several days to a week. This stage often includes autonomic instability, breathing

difficulties leading to hypoventilation or respiratory arrest, fluctuations in body temperature, low blood pressure, pituitary dysfunction, muscle breakdown (rhabdomyolysis), heart rhythm abnormalities, and cardiac arrest.

#### Diagnosis

1. Isolation of viruses from saliva of the brain (Negri bodies).
2. Detection of viral antigens by direct fluorescence of skin biopsy specimens or from corneal impression smears.
3. Measurement of rabies neutralizing antibodies in the serum or C.S.F.
4. Postmortem diagnosis in humans and animals by immunofluorescent staining of brain tissue.

#### Ayurvedic Management of *Alarka Visha*

Ayurvedic approaches to managing *Alarka Visha* involve several treatments

1. Application of *Agada* as a warm poultice on the affected area along with ingestion of old ghee.<sup>[11]</sup>
2. Administration of various pastes or mixtures involving *Tila* paste or *Tila Taila* with milky sap of *Arka*, *Sweta Punarnava* paste with milky sap of *Rupika (Arka)* and *Guda*, aimed at neutralizing the poison's effects.<sup>[12]</sup>
3. Root of *Sarapunkha* - 1 *Karsa* (10 gms)  
Root of *Dhattura* - 1/2 *Karsa* (5 gm)  
- Macerated along with *Tandula* (rice) using *Tandulodaka* (rice-wash).  
- This ball of paste is enveloped with leaves of *Datura* and *Apupa* (pancake) made it.

This cake should be consumed at the time of meals (midday). If after the digestion of this pancake the person still performs the activities of the rabid animal as before, then he should be kept confined in a cold room and devoid of water. The next day, he must be made to take warm meals of boiled rice or swastika rice along with milk. This kind of treatment should be done for three to five days and by half its degree for further days.<sup>[13]</sup>

4. Use of specific herbs like *Bandhujva*, *Bhargi*, and black *Tulasi*, prepared as a snuff (*Pradhama Nasya*) or topical application for cases where poison affects the head.<sup>[14]</sup>
5. *Pippaliyadi anjana (Agada yoga)* - *Pippali*, *Marica*, *Yavaksara*, *Vacha*, rock salt, and *Sigru* pounded with the bile of *Rohita* fish and applied to eyes as collyrium destroys the poison in the eyes.<sup>[15]</sup>
6. *Ashrayik Chikitsa of Alarka Visha*:
  - i. If poison is in the throat, the unripe fruit of *Kapiththa* should be taken and mixed with sugar and honey.<sup>[16]</sup>
  - ii. If poison located in the stomach 40 gms. Powder of *Tagara* mixed with sugar and honey should be taken.<sup>[17]</sup>
  - iii. In poisoning of flesh, *Khadirarist* with honey or root of *Kutaja* should be crushed and taken with water.<sup>[18]</sup>
  - iv. In poisoning of the blood, root bark branch of soft leaf of *Slesmataka*, the shoot of *Badara*, *Udumbara* soft leaves, and *Katabhi* soft leaves crush with water should be taken.<sup>[19]</sup>

v. If poison is spared the whole whole body two type of *Bala* (*Bala*, *Atibala*) root, *Mahuva*, *Mulethi*, *Tagara* are equal amount of powder are crushed with water should be taken.<sup>[20]</sup>

7. Use of *Agada Yoga* - a mixture of *Pippli*, *Sunthi*, *Yavaksara* with fresh butter - applied to the bite site in case of aggravated *Kapha*.<sup>[21]</sup>

8. *Mansyadi Yoga* (drink, *Nasya*, *Anjana*, and *Lepa*) - *Jatamansi*, *Kesar*, *Tejpata*, *Dalchini*, *Haridra*, *Tagara*, *Chandana*, *Realgar*, *Vyaghranakha*, *Surasa* (*Tulsi*) in equal proportion taken and crush with water than use drink, *Nasya*, *Anjana*, and *Lepa* all type of swelling and poison effect are destroying.<sup>[22]</sup>

9. *Ankola* root decoction mixed with ghee.

10. *Bhimarudra Rasa-1*: *Parad*, *Gandhak*, *Abhrak*, *Kant Lauha Bhasma* and *Swaras* of *Vishala*, *Brihati*, *Brahmi*, *Shaugandhik*, *Dadim*, *Markati*, *Atmagupta*.<sup>[23]</sup> These Ayurvedic methods encompass a variety of herbal mixtures, pastes, decoctions, and topical applications targeting different manifestations of poison in the body.

## Prevention vaccination

### A. Pre-exposure prophylaxis

It requires those who handle potentially infected animals professionally, those who work with rabies virus in laboratories and those who live at special risk in rabies - endemic area. Protection is afforded by two intradermal injection of 0.1 ml human diploid cell strain vaccine, of two intramuscular injection of 1ml, given 4 weeks apart, followed by yearly boosters.<sup>[24]</sup>

### B. Post-exposure prophylaxis

Passive immunization: by human rabies immunoglobulin (RIG) 20 Units/kg. Half is infiltrated around the bite and half is given intramuscularly at different site from vaccine. Hyperimmune animal serum 40 units/kg; hypersensitivity reaction, including anaphylaxis, are common.<sup>[25]</sup> The safest vaccine, free of complication, is human diploid cell strain vaccine per 0.1 ml is given (HDCV) 6 injection on days 0 (bite), 3,7,14,28, and 90 into deltoid muscles, the first injection of HDCV is accompanied by RIG in the opposite arm.<sup>[26]</sup>

## Epidemiology and Preventions

The natural reservoirs of rabies are foxes, mongooses, and bats. Spread to domestic animals, especially dogs, increases the risk of human infection. Rabies was eradicated from Britain 70 years ago, but it is enzootic in foxes in mainland Europe. It is an important medicinal problem in some developing countries, causing at least 15000 human deaths each year. Rabies eradication control vaccination of domestic animals.

## DISCUSSION

In Ayurveda, *Sthavara Visha* (immobile poison) is recommended for treating any animate poison (*Jangama Visha*). This principle is evident in the use of substances like *Dhatura* (considered *Sthavara Visha*), *Shweta Punarnava*, and *Sarapunkha*, which are mentioned as potential remedies for dog bites. Many formulations,

such as *Pipalyadi Anjana* and *Mansyadi Yoga*, described in texts by *Sushruta* and *Ashtanga Sangraha*, prove beneficial in alleviating *Alarka Visha* symptoms, aligning with Ayurvedic beliefs. *Sushruta Samhita* suggests various formulations to counteract the progression of rabies, advocating for the use of *Dhatura Sarpunkha Yoga*, known for its anti-poisonous effects, thus displaying efficacy against *Alarka Visha*. This echoes the broader Ayurvedic viewpoint emphasizing the use of specific substances and formulations to address the effects of animate poisons, including those caused by dog bites.

## CONCLUSION

Ayurvedic texts, including the *Brihatrayee*, detail various drug combinations for managing *Alarka Visha*. However, once severe symptoms manifest in a person bitten by a dog, the texts suggest that curing becomes immensely challenging. *Sushruta Samhita* even mentions that when symptoms worsen due to the poison's accumulation in the body, survival becomes nearly impossible. Therefore, it emphasizes the need to stimulate the poison's expulsion as early as possible, indicating the importance of prophylactic or preventive treatment. This notion underscores the significance of exploring and understanding prophylactic approaches in Ayurveda. Investigating these preventive measures is crucial in today's world, offering an avenue for Ayurveda to significantly contribute to society. Ayurvedic drugs, known for their safety and efficacy, could potentially play a vital role in preventing or minimizing the effects of such poisonous conditions. Further studies in this area could unlock valuable insights into preventive Ayurvedic treatments, potentially offering solutions to manage *Alarka Visha* more effectively. This exploration aligns with the need of the hour, where ancient wisdom can be harnessed and integrated with modern approaches to improve healthcare and contribute positively to society's well-being.

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